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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,036	06/04/2002	Steve S. Chung	NAUP0500USA	9763

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NAIPO (NORTH AMERICA INTERNATIONAL PATENT OFFICE)  
P.O. BOX 506  
MERRIFIELD, VA 22116

EXAMINER

PERT, EVAN T

ART UNIT PAPER NUMBER

2829

DATE MAILED: 09/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/064,036

Applicant(s)

CHUNG ET AL.

Examiner

Evan Pert

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/4/02 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### ***Drawings***

2. The drawings are objected to because:

Fig. 1 contains print that is less than 1/8 inch in height, not suitable for printing [37 CFR 1.84(p)];

Fig. 1 should be rearranged to read FIG. 1A, FIG. 1B and FIG. 1C, separately, for printing;

"windows" should read --window--in the process block after "start" in Fig. 1c; and

In Fig. 7, " = 12A " should read " = 12Å".

Corrected formal drawings are required.

### ***Specification***

3. The disclosure is objected to because of the following informalities:

- Words are run together without a space at [0004] ("by2002"), [0011] ("showsthe"), [0022] ("devicesto", "testedare", and "reducingthe"), [0032] ("tof" should read --to f -- or --to frequency--), and [0038] ("Nitcharacterization").

- At [0031], " $I_{CP}$ 's" would read better as " $I_{CP}$  currents"
- Table 1 at [0034] is illegible (*too small*).

Appropriate correction is required.

### ***Claim Objections***

4. Claims 1 and 6 are objected to because "having same low-level gate voltage ( $V_{gl}$ ) and same increasing high-level gate voltage ( $V_{gh}$ )" should read --having the same low-level gate voltage ( $V_{gl}$ ) and the same increasing high-level gate voltage ( $V_{gh}$ )-- (with antecedent basis clearly established for  $V_{gh}$  and  $V_{gl}$ ).
5. In line 7 of claim 1, "current ( $I_{CP}$ )- $V_{gh}$  curve" should read "current  $I_{CP}$ - $V_{gh}$  curve" (for consistency of nomenclature in the claims).

### ***Allowable Subject Matter***

6. Claims 1-8 are objected to for the informalities in items 4 and 5 above, but are otherwise allowable.
7. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not disclose applicant's claimed method for evaluating a MOS transistor characterized by subtracting an  $I_{CP}$ - $V_{gh}$  curve at a low gate pulse frequency from an  $I_{CP}$ - $V_{gh}$  curve at a high gate pulse frequency, which can be regarded as a real charge-pumping current curve at the low gate pulse frequency.

The claimed method is suited for monitoring the oxide quality in an ultra-thin gate oxide process [0038].

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***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chung et al. is cited as clearly disclosing the claimed invention, with possible contributions from 9 authors not part of the inventive entity of the instant application. The article to Chung et al. does not qualify as "prior art," but may raise questions under 35 USC 102(f).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evan Pert whose telephone number is 703-306-5689. The examiner can normally be reached on M-F (7:30AM-3:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on 703-308-1233. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0956.

ETP  
September 10, 2003

  
**EVAN PERT**  
**PRIMARY EXAMINER**